California Regional Water Quality Control Board
Lahontan Region

Linda S. Adams
Secretary for
Environmental Protection

Victorville Office
14440 Civic Drive, Suite 200, Victorville, California 92392
(760) 241-6583 • Fax (760) 241-7308
http://www.swrcb.ca.gov/rwqcb6

Arnold Schwarzenegger
Governor

March 30, 2009

TO: ATTACHED MAILING LIST

WDID NO. 6B260903003

TENTATIVE MASTER WATER RECYCLING REQUIREMENTS and WASTE DISCHARGE REQUIREMENTS, MAMMOTH COMMUNITY WATER DISTRICT DISINFECTED TERTIARY RECYCLED WATER, Mono County

Enclosed are tentative Waste Discharge Requirements (WDRs) for the above subject.

The California Regional Water Quality Control Board requests that you review the enclosed documents and provide us with your written comments no later than **April 29, 2009**. Comments received after that date cannot be given full consideration in preparation of the recommended Board Order to be presented to the Regional Board for adoption at the meeting scheduled for June 10, 2009.

If you need further information, please contact me at (760) 241-7306.
Sincerely,

Rebecca Phillips
Office Technician

Enclosures: Tentative Board Order
Comment form

cc: Mailing List

Notice

Submittal of Written Material for Regional Board Consideration

In order to ensure that the State of California Lahontan Regional Water Quality Control Board has the opportunity to fully study and consider written material, it is necessary to submit it at least ten (10) days before the Regional Board Meeting. Pursuant to Title 23 of the California Code of Regulations, Section 648.2, the Regional Board may refuse to admit written testimony into evidence unless the proponent can demonstrate why he or she was unable to submit the material on time or that compliance with the deadline would otherwise create a hardship. If any other party demonstrates prejudice resulting from admission of the written testimony, the Regional Board may refuse to admit it.

COMPLETE FORM AND RETURN

To: CA Regional Water Quality Control Board, Lahontan Region
14440 Civic Drive, Suite 200
Victorville, CA 92392
ATTN: Mike Coony

Comments TENTATIVE WASTE DISCHARGE REQUIREMENTS FOR MAMMOTH CWD, MASTER WATER RECYCLING REQUIREMENTS and WASTE DISCHARGE REQUIREMENTS

_____We concur with proposed requirements

_____We concur; comments attached

_____We do not concur; comments attached

_____(Sign)

_____(Type or print name)

_____(Organization)

_____(Address)

_____(City and State)

_____(Telephone)

GREG NORBY, GENERAL MANAGER
MAMMOTH CWD
PO BOX 597
MAMMOTH LAKES CA, 93546

CHANDRIKAA BALENDHRAN, P.E.
HDI ENGINEERING, INC
3230,EL CAMINO REAL, SUITE 200
IRVINE, CA

JUAN JOSSE, P.E
HDI ENGINEERING, INC
3230,EL CAMINO REAL, SUITE 200
IRVINE, CA

SEAN F. MCCARTHY, P.E
DHS OFFICE OF DRINKING WATER
464 W 4TH STREET STE 437
SAN BERNARDINO CA 92401

SANDRA BAUER
BAUER PLANNING &
ENVIRONMENTAL SERVICES, INC.
220 COMMERCE, SUITE 230
IRVINE, CA 92602

US FOREST SERVICE
INYO NATIONAL FOREST
351 PACU LANE SUITE 200
BISHOP CA 93514

US FISH AND WILDLIFE SERVICE
2493 PORTOLA ROAD SUITE B
VENTURA CA 930030
ATTN KIRK WALN

US GEOLOGICAL SURVEY
PO BOX 1360
CARNELIAN BAY CA 96140
ATTN CHRIS FARRAR

SANDY HOUCK
OFFICE OF WATER RECYCLING
DCWP
PO BOX 944212
SACRAMENTO CA 94244-2120

UC SANTA BARBARA
VALENTINE EASTERN SIERRA
RESERVE
HCR 79 BOX 198
MAMMOTH LAKES CA 93546
ATTN DAN DAWSON

US ARMY CORPS OF ENGINEERS
2151 ALESSANDRO DR SUITE 255
VENTURA CA 93001
ATTN BRUCE HENDERSON

CA DEPT OF FISH & GAME
407 WEST LINE STREET
BISHOP CA 93514
ATTN MICHAEL HAYNIE

TOWN OF MAMMOTH LAKES
PO BOX 1609
MAMMOTH LAKES CA 93546
ATTN BILL TAYLOR

DENNIS WILLIAMS
LOS ANGELES DEPT OF WATER &
POWER
PO BOX 111 RM 1466
LOS ANGELES CA

LOS ANGELES DEPT OF WATER &
POWER
300 MANDICH STREET
BISHOP CA 93514
ATTN BRIAN TILLEMANS

US FOREST SERVICE
PO BOX 148
MAMMOTH LAKES CA 93546
ATTN: MOLLY BORWON

CALIFORNIA TROUT
PO BOX 3442
MAMMOTH LAKES CA 93546
ATTN ROB LUSARDI

HOT CREEK RANCH
ROUTE 1 BOX 206
MAMMOTH LAKES CA 93546
ATTN BILL NICHOLS

SIERRA CLUB
PO BOX 1973
MAMMOTH LAKES CA 93546
ATTN BRYCE & WILMA WHEELER

UC SANTA BARBARA
SIERRA NEVADA AQUATICS RESEARCH
LAB
HCR 79 BOX 198
MAMMOTH LAKES CA 93546
ATTN BOB JELLISON

BOB PIEROTTI
STATE DEPT OF WATER RESOURCES
770 FAIRMONT AVENUE
GLENDALE CA 91203-1035

CURT TAUCHER REGIONAL MANAGER
DEPT OF FISH AND GAME
4665 LAMPSON AVE., STE J
LOS ALAMITOS, CA 90720

DISTRICT ENGINEER
DHS OFFICE OF DRINKING WATER
464 W 4TH STREET STE 437
SAN BERNARDINO CA 92401

JEFF STONE
CDHS OFFICE OF DRINKING WATER
1180 EUGENIA PLACE, STE 200
CARPENTERIA, CA 93013

MONO COUNTY HEALTH DEPT
DENNIS LAMPSON CO SANITARIAN
PO BOX 476
BRIDGEPORT CA 93517

GORDON INNES
SWRCB
DIVISION OF WATER QUALITY
SACRAMENTO

MIKE COONY
WRC ENGINEER
CRWQCB
14440 CIVIC DR STE 200
VICTORVILLE CA 92392

CINDI MITTON
SENIOR ENGINEER
CRWQCB
14440 CIVIC DR STE 200
VICTORVILLE CA 92392

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6V-2009-(TENTATIVE)
WDID No. 6B260903003

MASTER WATER RECYCLING REQUIREMENTS and
WASTE DISCHARGE REQUIREMENTS
MAMMOTH COMMUNITY WATER DISTRICT
DISINFECTED TERTIARY RECYCLED WATER

Mono County

The California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. Recycled Water Report

The Mammoth Community Water District (District) has filed an application with the Water Board under California Water Code (Water Code) Section 13522.5. For the purposes of this Order, the District is referred to as the "Discharger". Pursuant to Water Code Section 13523.1, the District's application requests the Water Board issue Master Water Recycling Requirements to the District for the District's recycled water project. The District proposes supplying up to 1.55 million gallons per day (MGD) of disinfected, tertiary recycled water as defined in California Code of Regulations, title 22, section 60301.230, that is suitable for unrestrictive landscape irrigation. The potential users are Sierra Star Golf Course (Sierra Star), Snowcreek Golf Course expansion (Snowcreek), and Shady Rest Park (Shady Rest). On behalf of the District, HDR Engineering Inc. and Bauer Planning and Environmental Services submitted information in August 2008 and February 2009, respectively, to complete the application. The documents that constitute the complete application under Water Code Section 13522.5 are listed in Attachment H.

2. Facilities and Treatment Process

The District collects, treats and disposes of domestic wastewater generated in the District's service area, which is generally the Town of Mammoth Lakes located in the southwestern part of Mono County (Attachment A). Boundaries of the Districts's service area encompass an area of approximately 3,640 acres or 5.7 square miles. The area covered in this permit includes the District's boundaries and adjacent Forest Service land (Attachment B).

The District owns and operates the Mammoth Lakes Wastewater Treatment Plant (Treatment Plant), which is located 1.5 miles east of the Town of Mammoth Lakes.

The design capacity of the Treatment Plant is a maximum average 30-day flow of 4.1 MGD and a maximum daily flow of 5.48 MGD. The Treatment Plant is an activated sludge plant with the following unit processes: raw sewage grinding,

primary sedimentation, conventional activated sludge operated for carbonaceous biological chemical demand (BOD) removal, secondary sedimentation, tertiary media filtration, and chlorine contact basins. Treated effluent is conveyed by gravity outfall to the Laurel Pond disposal site, which is located 3.5 miles southeast of the Treatment Plant.

3. Current Board Orders

Board Order No. 6-91-22 adopted on March 14, 1991 includes effluent limits, receiving water limitations for ground water, provisions, and monitoring requirements for the District's existing wastewater collection, treatment, and disposal facilities. Board Order No. 6-88-143 adopted on September 8, 1988 authorizes the District to reuse water along both sides of Main Street (Hwy. 203) between Mono St. and Mammoth Road. Recycled water is delivered from the Treatment Plant by tank truck, and water is applied during periods of minimal public contact.

4. Reason for Action

The District is proposing to supply up an average flow of 1.55 MGD and a peak flow of 2.9 MGD of title 22-quality, disinfected, tertiary recycled water (hereinafter, recycled water) for irrigation use at Sierra Star, Snowcreek, and Shady Rest. The project includes storage of recycled water in lined surface impoundments at Sierra Star and Snowcreek golf courses. The purpose of the District's recycled water project is to provide treated wastewater for landscape irrigation, which would otherwise create a demand on potable water supplies during the summer. In May 2007, the Town of Mammoth Lakes completed a comprehensive update to their General Plan. The Town reported that land development under the approved General Plan would result in a water deficiency of 1,488 acre-feet in a dry year.

The master water recycling requirements authorize the District under Water Code Section 13523.1 to regulate the users of the recycled water to ensure compliance with water recycling requirements contained in the uniform statewide criteria ("title 22 requirements") pursuant to Water Code Section 13521.

5. Source of Recycled Water

The District will produce recycled water at the Treatment Plant. The District proposes to improve the existing filtration and disinfection facilities to meet title 22 requirements and to reliably meet user needs. The improvements include secondary effluent pumping to filters, coagulant/flocculant addition and mixing, a new disk tertiary filter and associated back wash system that replaces existing media filters, new chlorinators with in-line chlorine gas injection, new chlorine contact basins, yard piping, one recycled storage basin, and a recycled water pumping station. A site map illustrating the improvements at the Treatment Plant is included in Attachment C of this Order.

The tertiary treatment facilities will receive wastewater that has undergone secondary treatment. The resulting recycled water will be distributed to recycled water users. Two by-pass pumps will provide diversion of secondary treated wastewater to the existing secondary disinfection unit and then to the Laurel Pond disposal site. A flow diagram of the District's Treatment Plant that incorporates the improvements is included in Attachment D of this Order.

6. Producer, Distributor and Users

Under this Order, the District is the producer and the distributor of recycled water. The District has identified Sierra Star, Snowcreek, and Shady Rest as potential users. Shady Rest Park is located on U.S. Forest Service land.

7. Recycled Water Transmission and Distribution System

Delivery of recycled water from the Treatment Plant to Sierra Star, Snowcreek, and Shady Rest will be through separate pump stations and effluent pipelines. The District will install the Sierra Star and Snowcreek pipelines in a common trench for most of the Snowcreek pipeline.

8. Permit Area

This Order authorizes use of recycled water at sites located within the District's boundary, which generally coincides with the Town of Mammoth Lakes. In addition, this Order authorizes recycled water uses outside its boundary, including U.S. Forest Service Land such as Shady Rest. The permit area is illustrated in Attachment B of this Order.

9. Authorized Recycled Water Uses

This Order authorizes recycled water use for landscape irrigation at parks and golf courses and other landscaped areas and for watering at construction sites to minimize airborne dust.

10. Authorized Recycled Water Use Sites

The sites authorized for use of recycled water under this Order (Authorized Recycled Water Use Sites) are those:

a. Located within the Permit Area described in Finding No. 8, above; and
b. Where the use is limited to those described in Finding No. 9, above.

11. Topography

Sierra Star, Snowcreek, and Shady Rest reuse areas are located in the Murphy Gulch, Mammoth Creek, and Basalt Canyon drainages, respectively. Murphy Gulch drains into Mammoth Creek near the intersection of Highways 203 and 395, about

2.5 miles east of Sierra Star. Basalt Canyon drains into Mammoth Creek about 1 mile east of the intersection of Hwy 203 and 395. Land surface elevations average 7,800 feet at Shady Rest, 7,850 feet Snowcreek, and 8,000 feet at Sierra Star. These drainages are part of the Long Hydrologic Area of the Owens Hydrologic Unit.

12. Geology and Hydrogeology

Two kinds of rock deposits exist beneath the Sierra Star and Snowcreek reuse sites. The upper layers are unconsolidated glacial till, and the lower layers are basalt.

At Sierra Star, unconsolidated glacial till deposits are at depths ranging from 125 to 190 feet below the ground surface (bgs). The glacial till has consists of fine to course sand, gravel, boulders, silt, and clay. Underlying the glacial till is basalt. Groundwater occurrence is in the fractures and scoria zones of the basalt. Depth to groundwater is 280 feet bgs or greater. Groundwater movement is to the north and northeast and has a gradient of 50 feet per mile.

At Snowcreek, unconsolidated glacial till deposits range from 95 to 105 feet bgs. Beneath the unconsolidated materials is basalt. Groundwater is encountered below 150 feet bgs in the fractured basalt and scoria layers. Groundwater movement is to the northeast and has a gradient of 400 feet per mile.

The District's production wells draw water from the basalt layer. However, shallow water is sometimes present during spring and early summer, mainly from snowmelt.

13. Ground Water Quality

The District has measured groundwater quality from supply wells that are located at or adjacent to Sierra Star and Snowcreek. At each location, the District selected a representative up-gradient well and down-gradient well. The supply wells are screened in the basalt layer. Water quality results are presented in Table 1. The higher groundwater temperature that has been measured by the District in Well 16 indicates this well is influenced by geothermal water.

Table 2. Reuse Area Groundwater Quality, mg/L

Constituent	MCL[1]	Sierra Star Well No. 16 Up-gradient	Well No. 21 Down-gradient	Snow Creek Well No. 10 Up-gradient	Well No. 6 Down-gradient
TDS	500[2]	448	177	275	268
Chloride	250[3]	12	1.6	5.3	0.02
Nitrite+Nitrate–N	10	< 0.05	0.1	< 0.05	0.06
Nitrite–N					

[1]MCL = Drinking Water Standard - Maximum Contaminant Level
[2]Secondary MCL recommended level; upper level = 1000 mg/L; short-term level = 1500 mg/L.
[3]Secondary MCL recommended level; upper level = 500 mg/L; short-term level = 600 mg/L

The expected quality of the recycled water supply is presented in Table 2.

Table 2. Expected recycled water supply quality

Constituent	Units	Value
pH	pH units	6.0 to 7.7
Turbidity	NTU	<2
BOD	mg/L	<10
TDS	mg/L	288
Chloride	mg/L	43
Ammonia–N	mg/L	25
Nitrite–N	mg/L	<0.16
Nitrate–N	mg/L	<0.38
Phosphorus	mg/L	4
THM	mg/L	3.1
HAA	mg/L	40
Total Coliform	MPN/100 mL	<2

14. Receiving Waters

The receiving waters are the ground waters located within the Long Valley Groundwater Basin (DWR Basin No. 6-11).

15. Lahontan Basin Plan

The Water Board adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan), which became effective on March 31, 1995. This Order implements the Basin Plan as amended.

16. Beneficial Uses

The beneficial uses of the ground waters of the Long Valley ground water basin, as set forth and defined in the Basin Plan, are:

a. Municipal and Domestic Supply (MUN);
b. Agricultural Supply (AGR);
c. Industrial Service Supply (IND); and
d. Freshwater Replenishment (FRSH).

17. State Water Board Water Reclamation Policy

State Water Board Resolution No. 2009-0011, ("Adoption of a Policy for Water Quality Control for Recycled Water"), references and adopts the State's Recycled Water Polity. The policy directs the State Water Board, regional boards, California Department of Health, Department of Water Resources, and Water/wastewater agencies to plan and implement water recycling in the State. This Order implements the State Recycled Water Policy.

18. Incidental Runoff of Recycled Water

The State Recycled Water Policy defines incidental runoff as unintended small amounts (volume) of runoff from recycled water use areas, such as unintended, minimal over-spray from sprinklers that escapes the recycled water use area. Water leaving a recycled water use area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence.

The Discharger must develop and implement an operations and management plan that applies to all reuse areas. This plan must provide for detection of leaks (for example, broken sprinkler heads) and correction within 72 hours or prior to a release of 1,000 gallons, which ever occurs first.

19. Dischargers of Recycled Water from Surface Impoundments

The State's Water Recycling Policy prohibits discharge to surface waters from a surface impoundment containing recycled water unless the discharge is a result of a 25-year, 24-hour storm event or greater. The Discharger is improving the Bear Lake impoundment at Sierra Star to contain recycled water and storm water up to a 100-year, 24-hour storm event.

20. Regulation of Recycled Water

a. California Code of Regulations, title 22, State Department of Health Services

The State Department of Health Services established criteria for using recycled water. These criteria are codified in California Code of Regulations, title 22, chapter 3, Water Recycling Criteria, and include such requirements as Sources of Recycled Water, Uses of Recycled Water, and Use Area Requirements. The State Department of Health Services adopted revised Water Recycling Criteria that became effective on March 20, 2001. Applicable criteria are prescribed in this Order.

b. Engineering Reports

As required under California Code of Regulations, title 22, section 60323, the District has submitted engineering reports for the production of recycled water and use of recycled water at the Sierra Star Golf Course to the State of California Department of Public Health (CDPH). The content and status of each report is the following:

Engineering report title	Scope	CDPH review status	District's response to CDPH comments
Recycled Water System Engineering Report, Draft, June 2008	Treatment and recycled water production	Report accepted with conditions on Aug 14, 2008	District addressed each CDPH condition on September 12, 2008
Sierra Star Golf Course On-Site Recycled Water System, Final Draft, December 2008	Sierra Star distribution system	Report accepted with conditions on March 12, 2009	District addressed each CDPH condition on <letter pending>

Water Board has reviewed the District's response to CDPH's acceptance letters, and accepts the Recycled Water System Engineering Report as complete, and accepts engineering report for Sierra Star use as complete.

Prior to implementing a project for Snowcreek, new areas in Shady Rest, and other yet-to-be identified uses, the District will prepare the appropriate engineering reports, obtain acceptance of the project from appropriate agencies, and will implement California Public Health conditions for project acceptance.

c. Regulation

Water Code Section 13523, subdivision (a) states that:

> "Each regional board, after consulting with, and receiving the recommendations of, the State Department of Health Services and any party who has requested in writing to be consulted, with the consent of the

proposed permittee, and after any necessary hearing, may, in lieu of issuing waste discharge requirements pursuant to Section 13263 or water reclamation requirements pursuant to Section 13523 for a user of reclaimed water, issue a master reclamation permit to a supplier or distributor, or both, of reclaimed water."

This Order includes water recycling requirements that require the District to:

i. Comply with Uniform Statewide Reclamation Criteria (California Code of Regulations, title 22, sections 60301 through 60355) established pursuant to Water Code Section 13521; (Water Recycling Specification No. I.B.1 of this Order)

ii. Establish and enforce Requirements for Recycled Water Users (Attachment F), which govern the design and construction of facilities located at use sites and the use of recycled water at those sites; (Water Recycling Specifications No. I.B.2 and I.B.4 of this Order)

iii. Conduct periodic inspections of recycled water use sites to monitor compliance by users with the Uniform Statewide Reclamation Criteria, the Requirements for Recycled Water Users; and the requirements of this Order; (Water Recycling Specifications No. I.B.3 and I.B.4 of this Order) and

iv. Submit quarterly reports that include the results of the District's compliance monitoring and the information required by Water Code Section 13521.

Regarding requirement i above, the District, through information contained in its CEQA documents and the District's application, established that the recycled water uses will comply with the title 22 requirements.

Regarding requirements ii and iii above, the District has completed and submitted a report to the Water Board containing its proposed Requirements for Recycled Water Users and its Compliance Inspection and Enforcement Program. The report meets the "Requirements for Recycled Water Users", Appendix F of this Order.

This Order implements requirement iv through the attached Monitoring and Reporting Program.

21. Streamlined Permitting

a. Eligibility

The proposed water recycling project meets the criteria for streamlined permitting of Landscape Irrigation Projects under the State Recycled Water Policy, Section 7.c. for the following reasons:

- The project complies with title 22 regulations,
- The proposed use is at rates needed for the landscape,
- The District will participate in the development of any applicable salt and nutrient management plan, and
- The District will communicate to users the nutrient levels in the recycled water, and the users will take into account the nutrient levels in the recycled water prior to application of fertilizers.

b. Permit requirements

According to the Water Recycling Policy 7.b.(4), landscape irrigation projects that qualify for streamline permitting are not required to conduct project specific receiving water and groundwater monitoring. During the interim when the salt management plan is under development, the District must either perform project specific monitoring or actively participate in the development and implementation of the salt/nutrient management plan. Permits must include monitoring of priority pollutants on a twice annual basin. This Order includes a requirement that the District participate in developing the salt/nutrient management plan and includes project specific monitoring while the plan is developed.

22. Maintenance of High Quality Waters in California

State Water Board adopted Resolution No. 68-16 as a policy statement to implement the Legislature's intent that waters of the Sate shall be regulated to achieve the highest water quality consistent with the maximum benefit to the people of the states. Activities involving disposal of waste that could impact high quality waters are required to implement best practicable treatment or control of the discharge necessary to ensure that pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained. In accordance with State Water Policy 9.d, the proposed water recycling project is consistent with the State Water Board Resolution No. 68-16 for the following reasons:

a. Landscape irrigation with recycled water is of benefit to the people of the State because it conserves potable water for other uses;

b. The resulting water quality will meet groundwater quality objectives because the District, will participate and implement the salt/nutrient management plan that will assure protection of receiving groundwater beneficial uses;

c. The project provides best practical treatment because use for turf irrigation removes nutrients from the applied water, resulting in less drainage of nutrients below the root zone; and

d. The Order provides best practical control because it prohibits the use of recycled water that causes a pollution or nuisance.

23. Consideration of Water Code Section 13241 Factors

Section 13263 of the Water Code requires that the Water Board, when prescribing Water Quality Objectives (WQOs), take into consideration five specific factors in Section 13241 of the Water Code. The Board has considered these factors as follows:

a. Past, present, and probable future beneficial uses of water.

The receiving waters are the groundwaters of the Long Valley Groundwater Basin. This Order includes requirements for protection of the past, present, and probable future beneficial uses of Long Valley Groundwater Basin. WQOs for the beneficial uses will be met. In addition, this Order requires the Discharger to participate and implement a salt and nutrient management plan. This plan applies to an entire groundwater basin, and plan implementation will preserve the beneficial uses of the Long Valley Groundwater Basin.

b. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

The geological and hydrogeologic characteristics of the subsurface soils and the groundwater basin are described in Finding No. 12. Finding No. 13 describes the quality of waters.

c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors, which affect water quality in the area.

The discharge meets the conditions set forth in State Water Resources Control Board Resolution No. 68-16 with implementation of the control measures included in the project. In addition, the development and implementation of a salt/nutrient management plan will result in a coordinated effort to protect receiving groundwater quality.

d. Economic considerations.

Use of recycled water will replace supplied groundwater for the same uses, therefore conserving water resources.

e. The need for developing housing within the region.

In the Town of Mammoth Lakes' (Town) revised Draft EIR, Town of Mammoth Lakes 2005 General Plan Update, the Town recommended Mitigation Measure 4.11-1. In this measure, the Town will not approve new development that would result in water demand in excess of available supplies. This order permits the reuse of recycled water to replace existing water supplies. This will allow more water to be set aside for new development.

f. The need to develop and use recycled water.

This order gives the District the ability to develop and use recycled water.

24. California Environmental Quality Act Compliance (CEQA)

The District has completed CEQA for the project as follows:

Environmental document	Scope	Notice of Determination Date	Adopted mitigation measures
EIR/EA	Treatment upgrades	October 1998	Protect Laurel Pond disposal site as wetlands habitat by maintaining 18 acres or larger in size; (2) monitor pilot Jarvis-Tinsley Mitigation Banking Site adjacent to Laurel pond, and provide compensatory mitigation at a 1.5 to 1 ratio if impacted; and (3) implement storm water best management practices (BMPs) to prevent erosion and sedimentation during treatment plant construction.
Subsequent EIR	Pipeline delivery system	March 2007	(1) comply with monitoring and reporting requirements set by the Water Board, (2) implement storm water BMPs during construction, and (3) use automatic irrigation controllers to optimize irrigation efficiency.
Subsequent Mitigated Declaration	User surface impoundments	(pending)	(pending)

The Water Board, acting as a CEQA Responsible Agency in compliance with California Code of Regulations, title 14, section 15096, evaluated the impacts to water quality addressed in each of the three environmental documents. As a result of the analysis, the Water Board finds the mitigation measures in final environmental documents, combined with compliance with the requirements specified by this Order, to be adequate to reduce water quality impacts to less than significant levels.

25. Notification of Interested Parties

The Water Board has notified the District and interested persons of its intent to prescribe master water recycling requirements.

26. Consideration of Public Comments

The Water Board, in a public meeting, heard and considered all comments pertaining to the use of recycled water.

IT IS HEREBY ORDERED that the District must comply with the following:

I. WATER RECYCLING SPECIFICATIONS

A. Effluent Limitations

Recycled water production at the Treatment Plant shall not exceed 1.55 MGD (maximum average 24-hour flow) and 2.9 MGD (maximum instantaneous flow).

B. Regulation and Enforcement

1. Pursuant to Water Code Section 13523.1, subdivision (b)(2), the District must comply with the Uniform Statewide Reclamation Criteria, which are contained in California Code of Regulations, title 22, sections 60301 through 60355 and are established pursuant to Water Code Section 13521.

2. Pursuant to Water Code Section 13523.1, subdivision (b)(3), the District must establish Requirements for Recycled Water Users governing the design and construction of recycled water use facilities and the use of recycled water, in accordance with the Uniform Statewide Reclamation Criteria. Attachment F of this Order identifies what constitutes acceptable Requirements for Recycled Water Users.

3. The District must establish a Compliance Inspection and Enforcement Program describing its programs for conducting periodic inspections required under Water Code Section 13523.1, subdivision (b)(5) and its enforcement program to address user violations of the Uniform Statewide Reclamation Criteria and the District's Requirements for Recycled Water Users.

4. Pursuant to Water Code Section 13523.1, subdivisions (b)(3) and (b)(5), the District must conduct periodic inspections of the facilities of recycled water users to monitor compliance by the users with the Uniform Statewide Reclamation Criteria and the District's Requirements for Recycled Water Users. During the inspections, the District must also

monitor compliance with Water Recycling Specifications No. I.C.1 through I.C.14 of this Order.

5. Pursuant to Water Code Section 13523.1, subdivision (b)(3), the District must enforce the Uniform Statewide Reclamation Criteria and the District's Requirements for Recycled Water Users.

6. The District is responsible for processing individual users' applications, inspecting recycled water use facilities, and ensuring users' compliance with this these master water recycling requirements.

7. The District must not supply recycled water to parties who distribute, store or use recycled water in a manner that is in violation of the Uniform Statewide Reclamation Criteria, Requirements for Recycled Water Users, and these master water recycling requirements.

C. General Requirements and Prohibitions

1. The discharge of recycled water to surface water, including excessive application, intentional overflow or application, or negligence, is prohibited. However, the incidental discharge of recycled water, such as unintended, minimal over-spray from sprinklers that escapes the recycled water use area is not a violation of this Order.
2. Bypass or overflow of untreated or partially treated recycled water from the Treatment Plant, any intermediate unit processes, or the recycled water distribution system, from the point of use is prohibited.

3. The use of recycled water must not cause a pollution or threaten to cause a pollution as defined in Water Code Section 13050.

4. Neither the treatment of wastewater nor the use of recycled water can cause a nuisance as defined in Water Code Section 13050.

5. The use of recycled water under this Order must be limited to the Authorized Recycled Water Use Sites defined in Finding No. 10 of this Order.

6. The uses of recycled water authorized under this Order are limited to those described in Finding No. 9 of this Order.

7. The source of recycled water must be limited to that described in Finding No. 5 of this Order.

8. Recycled water used to irrigate landscape areas must be applied at a rate and amount that does not exceed the irrigation and nutrient needs of the vegetation.

9. Recycled water must be applied at a rate and amount that does not cause ponding or runoff that is other than "incidental" in nature.

10. Pipelines must be maintained so as to prevent leakage.

11. The discharge of recycled water, which causes violation of any narrative WQO contained in the Basin Plan, is prohibited.

12. The discharge of recycled water, which causes violation of any numeric WQO contained in the Basin Plan, is prohibited.

13. Where any numeric or narrative WQO contained in the Basin Plan is already being violated, the discharge of recycled water, which causes further degradation or pollution, is prohibited.

14. All facilities used to transport and store recycled water must be adequately protected against overflow, structural damage, or a significant reduction in efficiency resulting from a 25-year, 24-hour storm or flood.

II. PROVISIONS

A. Recycled water shall not be supplied to Snowcreek, new areas in Shady Rest, and other yet-to-be defined uses until CDHS grants final approval for such use. The District must provide the Lahontan Water Board with a copy of the CDHS approval letter within 30 days of the approval notice.

B. Pursuant to California Code of Regulations, title 22, section 60316, subdivision (b), the District must notify the Water Board, State Department of Health Services and County of Mono Department of Health Services of any incidence of backflow from a recycled water system into the potable water system within 24 hours of discovery of the incident.

C. Pursuant to Water Code Section 13267, subdivision (b), the District must comply with Monitoring and Reporting Program R6V-2009-(TENTATIVE) as specified by the Executive Officer.

D. Pursuant to the State Water Recycling Policy, the Discharger shall:

1. Participate in the development of the salt and nutrient management plan, and

2. Implement the salt and nutrient management plan, when adopted by the Regional Board.

E. Pursuant to the State Water Recycling Policy, the Discharger shall control runoff in the following manner:

1. Implement an operations and management plan that controls incidental runoff, including discharge from surface impoundments. The plan must provide for detection of leaks (for example, broken sprinkler heads), and correction either within 72 hours of learning of the runoff, or prior to the release of 1,000 gallons, whichever occurs first,

2. Provide design and aim of sprinkler heads,

3. Refrain from application during precipitation events,

4. Manage surface impoundments ponds containing recycled water such that no discharge occurs unless the discharge is the result of a 25-year, 24 hour storm even or greater, and

5. Notify both Regional Board offices as soon as possible of any 1) discharge that is not incidental runoff and 2) discharge from the surface impoundments.

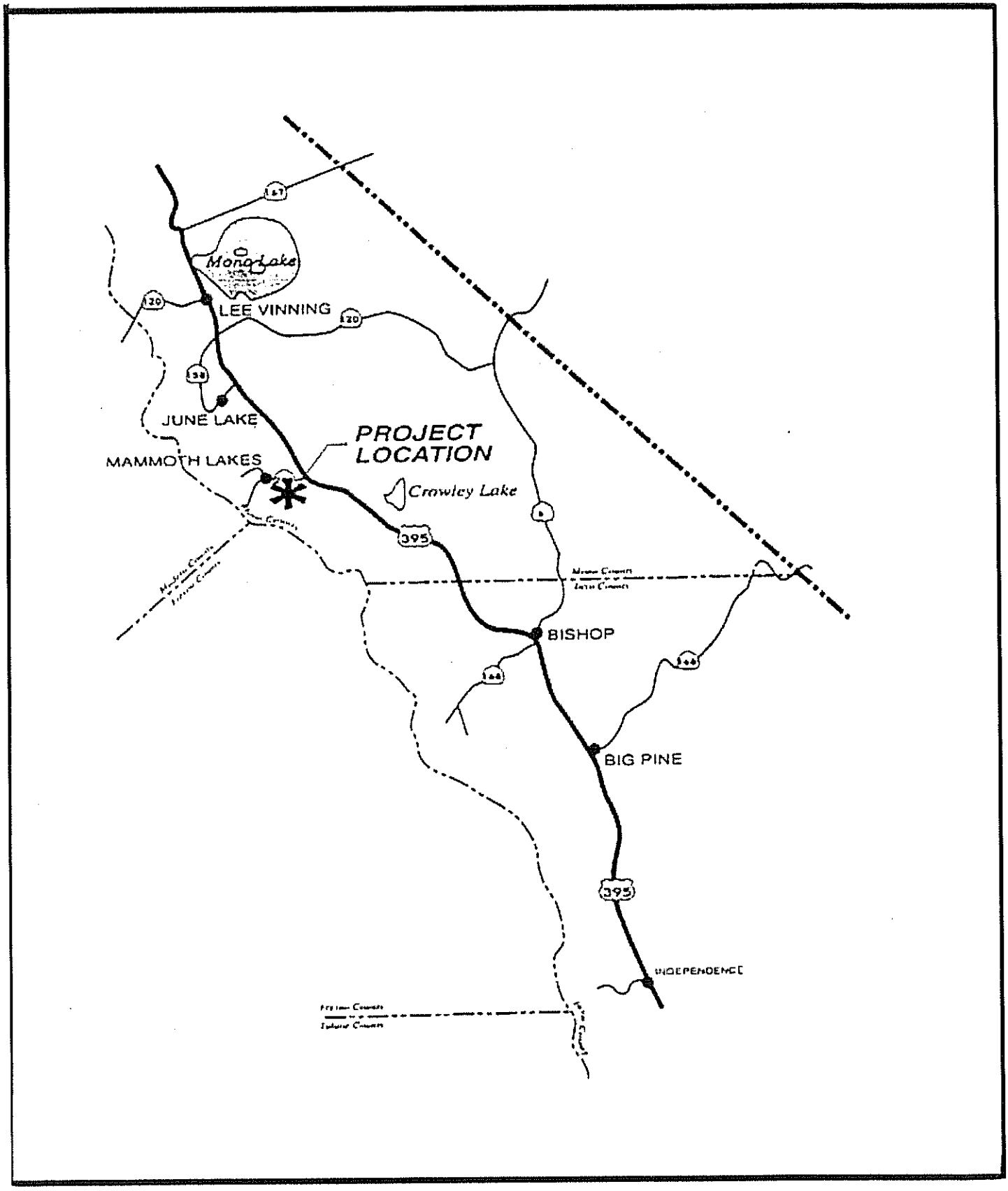
I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on June 11, 2009.

_____
HAROLD J. SINGER
EXECUTIVE OFFICER

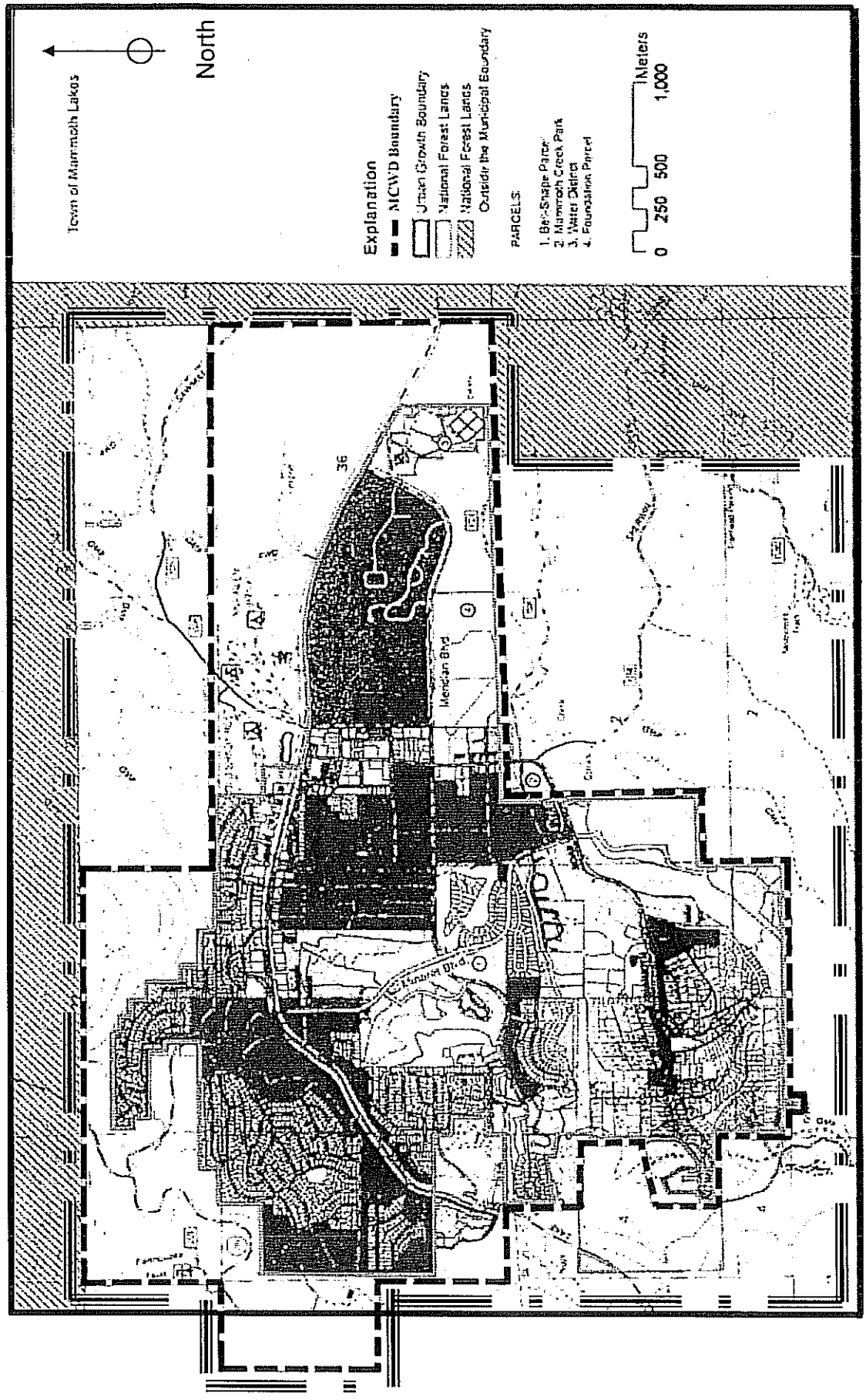
Attachments:
A. Location Map
B. Permit Area
C. Tertiary Treatment Plant Site Plan
D. Tertiary Treatment Plant Process Flow Diagram
E. WDR Bibliographic References
F. Requirements for Recycled Water Users
G. Standard Provisions for Waste Discharge Requirements
H. Master Water Recycling Application Materials (List Only)
I. Monitoring and Reporting Program

JM/rp BO2009/MammothCWD/R6V-2009-TT MammothCWD WDR.doc

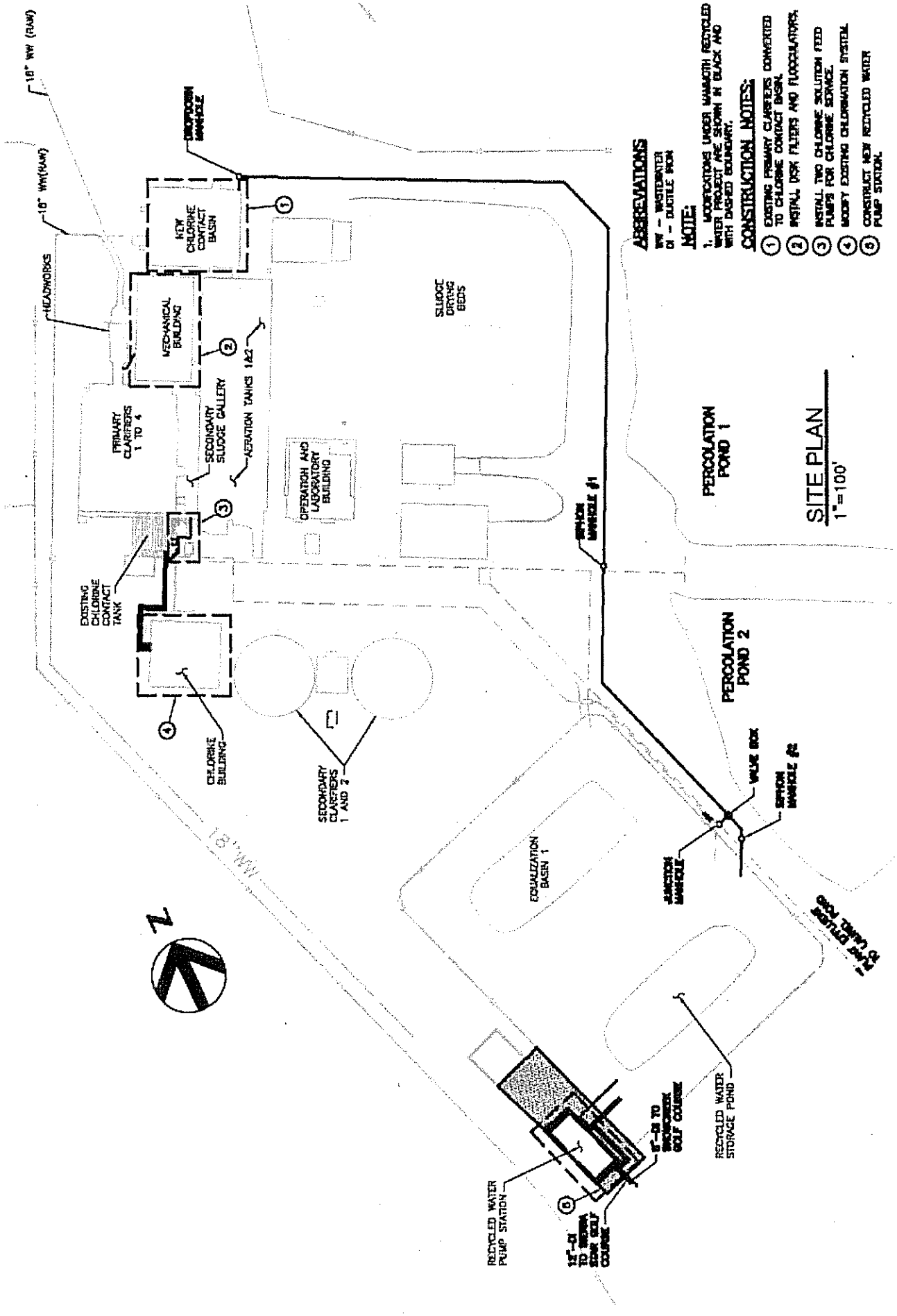
Attachment A: Location Map of Mammoth Community Water District



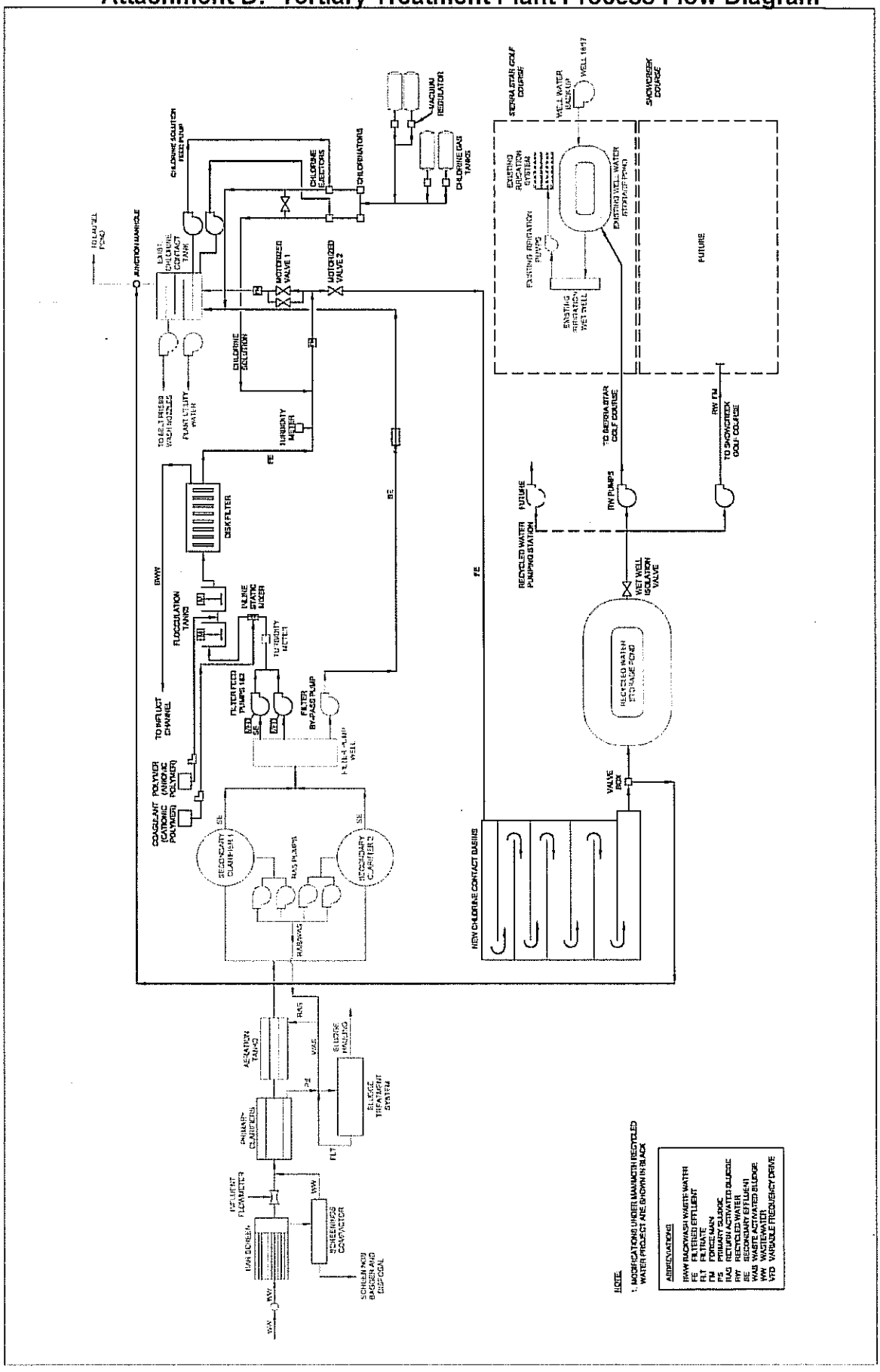
Attachment B: Mammoth Lake Water District Boundaries



Attachment C: Tertiary Treatment Plant Site Plan



Attachment D: Tertiary Treatment Plant Process Flow Diagram



Attachment E

Master Water Recycling Requirements Bibliographic References

1. HDR/MCWD, 2008, Draft Ordinance of the Board of Directors of the Mammoth Community Water District Establishing a Water Recycling Master Plan and Implementing Procedures

2. HDR/MCWD, 2008, Draft Mammoth Community Water District Recycled Water Use Rules and Regulations

3. HDR, June 2008, Mammoth Community Water District, Draft Recycled Water System Engineering Report

4. Bauer Planning & Environmental Services, Inc, September 2006, Mammoth Community Water District Subsequent Draft Environmental Impact Report Recycled Water Distribution Project

5. Bauer Planning & Environmental Services, Inc., March 2007, Mammoth Community Water District Recycled Water Distribution Project Final Subsequent Environmental Impact Report

6. MCWD, March 19, 2007, Notices of Determination, Mammoth Community Water District Recycled Water Project Subsequent Final EIR, State Clearinghouse No. 2005051011

7. HDR, April 8, 2008, Technical Memorandum, Sierra Star Golf Course On-Site Recycled Water Storage Hydrology and Water Quality Considerations

8. HDR, July 2006, Technical Memorandum No. 5, Groundwater Quality

9. MCWD, Aug 14, 2007, Review of Options for Delivery and Storage of Recycled Water to the Sierra Star and Snow Creek Golf Courses

10. Triad/Homes Associates, February 6, 2001, Letter to Sierra Star Golf Course, Bear Lake Hydrology Study.

11. California Department of Public Health (CDPH), August 14, 2008, Letter to Lahontan Water Board, Recycled Water System Engineering Report Mammoth Community Water District, Comments on MCWD's Recycled Water System Engineering Report Draft dated June 2008.

12. MCWD, September 12, 2008, Letter to Lahontan Water Board, Response to California Department of Public Health comments on MCWD's Draft Recycled Water System Engineering Report.

13. Kenneth D. Schmidt and Associates, December 13, 2006, Annual Report on Results of Mammoth Community Water District Groundwater Monitoring Program for October 2005 to September 2006.

14. Bauer Environmental Services, June 1998, Draft Environmental Impact Report and Environmental Assessment, Mammoth Community Water District, Proposed Reclaimed Water Project, SCH No. 95121029.

15. Bauer Environmental Services, October 1998, Final Environmental Impact Report and Environmental Assessment, Mammoth Community Water District, Proposed Reclaimed Water Project, SCH No. 95121029.

16. MCWD, October 15, 1998, Reclaimed Water Project EIR/EA, Resolution No. 10-15-98-17, Resolution of the Board of Directors of the MCWD Making Findings of Potential Significant Environmental Impacts and Certifying the Final Environmental Impact Report/Environmental Assessment for the Proposed Reclaimed Water Project

17. MCWD, October 15, 1998, Reclaimed Water Project EIR/EA, Resolution No. 10-15-98-18, Resolution of the Board of Directors of the MCWD to Approve the Proposed Reclaimed Water Project

18. California Regional Water Quality Control Board Lahontan Region (Lahontan Water Board), March 14, 1991, Board Order 6-91-22, Revised Waste Discharge Requirements for Mammoth County Water District, Mono County

19. Lahontan Water Board, September 8, 1988, Board Order No. 6-88-143, Revised Reclamation Requirements for Mammoth Lakes Wastewater Reuse Sites, Mono County

20. Bauer Planning & Environmental Services, Inc, February 2009, Mammoth Community Water District, Subsequent Mitigated Negative Declaration for the MCWD Recycled Water Storage Project.

21. MCWD, March 15, 2007, Recycled Water Project Subsequent EIR, Resolution 03-15-07-03, Resolution of the Board of Directors of the MCWD Concerning the Recycled Water Distribution Project

22. MCWD, March 15, 2009, Report of Waste Discharge for Master Permit for Recycled Water Supply.

23. MCWD, March 13, 2009, Bear Lake Impoundment Base Materials

ATTACHMENT F

I. Requirements for Recycled Water Users

A. Board Order No. R6V-2009-(TENT) requires the Mammoth Community Water District (District) to establish and enforce *Requirements for Recycled Water Users*. The *Requirements for Recycled Water Users* must include but not be limited to a description of the:

1. Process the Users must follow to obtain District authorization to use recycled water, including the agencies involved in the process, documents that must be completed (design plans, User Agreements, etc.), the routing of documents to the parties, agencies that must approve documents, agencies responsible for construction inspections, etc.

2. Requirements for the operational phase, including the designation of the Site Supervisor, and requirements for personnel training, operation and maintenance, type and frequency of cross-connection tests, etc.

B. The *Requirements for Recycled Water Users* must comply with the following laws and regulations:

1. Applicable portions of the Water Code, including Water Code section 13523.1;

2. Applicable portions of the Health and Safety Code;

3. California Code of Regulations, title 22, division 4, chapter 3, Uniform Statewide Reclamation Criteria; and

4. California Code of Regulations, title 17, division 1, chapter 5, group 4, article 1 & 2.

C. The *Requirements for Recycled Water Users* must be consistent with the following documents:

1. The document titled: *Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water,* State Department of Health Services;

2. Any measures that are deemed necessary for protection of public health, such as the American Water Works Association (AWWA) California/Nevada section, *Guidelines for the Distribution of Non-Potable Water and Guidelines for Retrofitting To Recycled Water* or alternate measures that are acceptable to the State Department of Health Services.

3. Relevant user manuals such as the Los Angeles County Recycled Water Advisory Committee's, 2005, *Recycled Water User Manual* (Manual).

D. At a minimum, the District's *Requirements for Recycled Water Users* must include the following requirements:

1. Before use of recycled water can begin at a proposed Authorized Recycled Water Use Site (Site), a User must file an application with the District and a User Agreement must be completed. The User Agreement must include the District's terms and conditions for the use of recycled water by a User. The application must include:

   a. A detailed description of the proposed recycled water use Site, including:

      i. A map showing the specific boundaries of the proposed Site;
      ii. The person or persons responsible for operation and maintenance of the Site (O&M Staff), including the person designated as the Site Supervisor as defined in Requirement No. I.D.3 of this attachment;
      iii. Evidence that the O&M Staff and Site Supervisor have received sufficient training to comply with Requirement No. I.D.4 of this attachment; and
      iv. The specific use to be made of the recycled water at each Site.

   b. Design plans and a description of best management practices (BMPs) that show that the quality of waters of the State will be protected and there will be compliance with Requirement No. I.D.6 of this attachment.

   c. Plans and specifications describing the following:

      i. Proposed piping systems to be used;
      ii. Pipe locations for both recycled and potable systems;
      iii. Type and location of the outlets and plumbing fixtures that will be accessible to the public; and
      iv. The methods and devices to be used to prevent backflow of recycled water into the public water system.

   d. Recycled Water System Operations Manual, and

   e. Emergency Cross-Connection Response Plan

2. The Site Supervisor must immediately initiate corrective action to eliminate violation of any applicable law or regulation, or the District's *Requirements for Recycled Water Users*.

3. Each User must designate a Site Supervisor who is responsible for the recycled water system at each Site under the User's control. Specific responsibilities of the Site Supervisor include the proper installation, operation, and maintenance of the recycled water system; compliance with the District's *Requirements for Recycled Water Users*, prevention of potential hazards and preservation of the recycled water system in "as built" condition.

4. The O&M Staff and the Site Supervisor must be trained ensure the Site is operated and maintained in compliance with applicable laws and regulations, and the District's *Requirements for Recycled Water Users.*

5. Users must allow an authorized representative of any of the following agencies the right to enter and inspect the Site upon presentation of proper credentials: the District, Lahontan Water Board, State Department of Health Services, and Mono County Public Health Department.

6. Sites using recycled water must be designed and operated using BMPs to ensure:

   a. Application of recycled water at agronomic rates so irrigation does not promote downward migration of pollutants, which could adversely impact the quality of groundwater;
   b. Adequate erosion control so that soil is not released into stormwater runoff and surface waters; and
   c. Fertilizer application does not adversely impact waters of the State.

   To demonstrate whether irrigation is at agronomic rates, the User must provide information to the District including a tabular comparison of the volume of water required for plant growth in the landscape area to the volume of recycled water (and supplemental water) applied to the area.

   To demonstrate whether fertilizer application is at agronomic rates, the User must provide information to the District including a tabular comparison of the amount of fertilizer needed for plant growth in the landscape area to the amount applied to the area. The Site Supervisor must only apply nitrogen fertilizer if levels of nitrogen in the recycled water are not sufficient for plant growth. If levels are not sufficient, the Site Supervisor must calculate how much fertilizer needs to be applied by subtracting the level in recycled water from the level needed for plant growth.

7. Sites using recycled water must be designed and operated using BMPs with the objectives of preventing recycled water spray, mist, or surface flow from either leaving the Site or reaching:

   a. Any surface waters located on or adjacent to the Site[1]
   b. Areas where the public has access (e.g., dwellings, designated outdoor eating areas, or food handling facilities.); or
   c. Drinking fountains.

8. BMPs used to achieve the objectives described in Requirement No. I.D.7 of this attachment, must include:

   a. Use of buffer zones;

[1] Except for runoff that is "incidental in nature.

b. Discontinuation of application of Recycled Water during precipitation events, which are of sufficient magnitude to generate surface flow within the Site; and
c. Use of devices that protect drinking water fountains against contact with recycled water spray, mist, or surface flow.

9. Sites must be designed and operated using BMPs with the objectives of preventing public contact with recycled Water. BMPs used to obtain these objectives must include: irrigation with recycled water during periods of minimal human use of the irrigated area and timing of irrigation to allow an adequate dry-out time before the irrigated area will be used by the public.

10. A copy of the *Requirements for Recycled Water Users*, design plans for the recycled water system and potable water system, and the Recycled Water System Operations Manual for the recycled water system be maintained at the use area. These documents must be available to operating personnel at all times.

11. The Site Supervisor must provide immediate verbal notification followed by written notification within 10 business days to the District, Lahontan Water Board, State Department of Health Services and Mono County Public Health Department if any of the following events occur:

    a. There is a complaint (or other source of information) concerning recycled water use that may involve illness;
    b. An unauthorized discharge of more than 50,000 gallons of tertiary treated recycled water (or 1,000 gallons for any lesser quality recycled water); or
    c. Contamination of the potable water system due to a cross-connection.

12. The Site Supervisor must immediately invoke the Emergency Cross-Connection Response Plan in case of contamination of the potable water system due to a cross-connection.

13. Irrigation with disinfected tertiary recycled water must not take place within 50 feet of any domestic water supply well. (Cal Code Regs., title 22, section 60310, subd. (a).)

14. Impoundment of disinfected tertiary recycled water must not occur within 100 feet of any domestic water supply well. (Cal Code Regs., title 22, section 60310, subd. (b).)

15. A public water supply must not be used as a backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of California Code of Regulations, title 17, section 7602, subdivision (a) and California Code of Regulations, title 17, section 7603, subdivision (a), and that such connection has been approved by the State Department of Health Services and/or its delegated local agency.

16. Any backflow prevention device installed to protect the public water system must be inspected and maintained in accordance with California Code of Regulations, title 17, section 7605 (Cal. Code Regs., title 22, section 60316, subd. (c).)

17. Except as allowed under California Code of Regulations, title 17, section 7604, no physical connection must be made or allowed to exist between any recycled water system and potable water system. (Cal. Code Regs., title 22, section 60310, subd. (h).)

18. The recycled water system must not include any hose bibs. Quick couplers that are different from those used on the potable water system may be used. (Cal Code of Regs., title 22, section 60310, subd. (i).)

19. All recycled water piping and appurtenances in new installations and appurtenances in retrofit installations must be colored purple or distinctively wrapped with purple tape in accordance with Health and Safety Code section 116815.

20. Sites must be designed and operated using BMPs to prevent: direct human consumption of recycled water, or use of recycled water for processing of food or drink intended for human consumption. There must be posting with conspicuous signs (in a size no less than 4 inches high by 8 inches wide) that include the following wording: "RECYCLED WATER - DO NOT DRINK" where recycled water could potentially be accessed for human consumption. Each sign must display an international symbol similar to that shown in Figure 60310-A of California Code of Regulations, title 22, section 60310, subdivision (g). The sign(s) must be of a size easily readable by the public. The prescribed wording should also be translated into Spanish and other appropriate languages and included in the required signs. (Cal Code Regs., title 22, section 60310, subd. (g).)

II. Compliance Inspection and Enforcement Program

A. Board Order No. R6V-2009-(TENT) requires the District to establish and implement a *Compliance Inspection and Enforcement Program*. The *Compliance Inspection and Enforcement Program* must include but not be limited to a description of the District's:

1. Plan for conducting routine compliance inspections of the Authorized Recycled Water Use Sites, including the name(s) of any parties that will assist the District in conducting the inspections.

2. Process for responding to violations, including ordering corrective action and initiating enforcement action.

B. At a minimum, the *Compliance Inspection and Enforcement Program* must be consistent with Water Code section 13523.1.

C. At a minimum, the District's *Compliance Inspection and Enforcement Program* must include the following requirements:

1. Inspections include review of the Site Supervisor's maintenance records and visual inspection of all back-flow prevention devices, pump rooms, exposed piping, valves, pressure reducing stations, points of connection, sprinklers, controllers, surface waters, storage facilities, signs, labeling, tags, etc.;

2. A Site compliance inspection report must be prepared for each inspection. The inspection report must be signed and dated by both the Site Supervisor and the inspector. At a minimum, copies of the reports must be maintained on file by the Site Supervisor, District, and inspecting entity if different from the District;

3. The inspector must immediately notify the Site Supervisor of violation(s) identified during inspections and what corrective actions must be taken;

4. Describe enforcement actions that will be employed for Users that fail to immediately initiate corrective action to eliminate violation(s). Such enforcement actions may include, but not be limited to:

    a. Immediately stopping recycled water service to a use Site where a violation has been identified and the violation is believed to constitute a hazard to the public health or threat to water quality.
    b. Termination of service to a User who uses, transports, or stores such water in violation of the District's *Requirements for Recycled Water Users*.

ATTACHMENT G

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

STANDARD PROVISIONS
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The Discharger shall permit Regional Board staff:

a. to enter upon premises in which an effluent source is located or in which any required records are kept;

b. to copy any records relating to the discharge or relating to compliance with the Waste Discharge Requirements (WDRs);

c. to inspect monitoring equipment or records; and

d. to sample any discharge.

2. Reporting Requirements

a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.

b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.

c. The Owners/Discharger of property subject to WDRs shall be considered to have a continuing responsibility for ensuring compliance with applicable WDRs in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the WDRs shall be reported to the Regional Board. Notification of applicable WDRs shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.

d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing, and correct that information.

e. Reports required by the WDRs, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation.

f. If the Discharger becomes aware that their WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their WDRs (or permit) be rescinded.

3. Right to Revise WDRs

The Regional Board reserves the privilege of changing all or any portion of the WDRs upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the WDRs may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and re-issuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the WDRs which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the WDRs. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the WDRs.

7. Waste Discharge Requirement Actions

The WDRs may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the WDRs conditions.

8. Property Rights

The WDRs do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the WDRs including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the WDRs shall be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Severability

Provisions of the WDRs are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board's Executive Officer.

14. Definitions

a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.

b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

Attachment H

Master Water Recycling Requirements Application Documents

- Bauer Environmental Services, June 1998, Draft Environmental Impact Report and Environmental Assessment, Mammoth Community Water District, Proposed Reclaimed Water Project, SCH No. 95121029

- Mammoth Community Water District, October 15, 1998, Reclaimed Water Project EIR/EA, Resolution No. 10-15-98-18, Resolution of the Board of Directors of the MCWD to Approve the Proposed Reclaimed Water Project

- HDR Engineering Inc., July 2006, Technical Memorandum No. 5, Groundwater Quality

- Bauer Planning & Environmental Services, Inc, September 2006, Mammoth Community Water District Subsequent Draft Environmental Impact Report Recycled Water Distribution Project, SCH No. 200505011

- Kenneth D. Schmidt and Associates, December 13, 2006, Annual Report on Results of Mammoth Community Water District Groundwater Monitoring Program for October 2005 to September 2006.

- Mammoth Community Water District, March 15, 2007, Recycled Water Project Subsequent EIR, Resolution 03-15-07-03, Resolution of the Board of Directors of the MCWD Concerning the Recycled Water Distribution Project

- HDR Engineering Inc., June 2008, Mammoth Community Water District, Draft Recycled Water System Engineering Report

- Bauer Planning & Environmental Services, Inc, February 2009, Mammoth Community Water District, Subsequent Mitigated Negative Declaration for the MCWD Recycled Water Storage Project, SCH No. 2009022054

- Mammoth Community Water District, March 15, 2009, Report of Waste Discharge for Master Permit for Recycled Water Supply.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. R6V-2009-(TENTATIVE)
WDID No. 6B260903003

MASTER WATER RECYCLING REQUIREMENTS AND
WASTE DISCHARGE REQUIREMENTS
MAMMOTH COMMUNITY WATER DISTRICT
DISINFECTED TERTIARY RECYCLED WATER

Mono County

I. MONITORING

A. Flow

Each month, the total volume, in million gallons, and the average flow rate, in million gallons per day (MGD), must be recorded for recycled water provided by the Mammoth County Wastewater Treatment Plant (Treatment Plant) to each Authorized Water Use site.

B. Application Rates for Fertilizers and Recycled Water

1. To demonstrate whether irrigation is at agronomic rates, include a tabular comparison of the:

   a. Volume of water required for plant growth in each landscape area;
   b. The volume of recycled water (and supplemental water) applied to each area; and
   c. The number of acres for each area.

2. To demonstrate whether nitrogen application is at agronomic rates, include a tabular comparison of the:

   a. Amount of nitrogen (N) needed for plant growth in each landscape area;
   b. Total amount of N applied to each area, including the amount of N in the recycled water and the amount of N in any fertilizer applied; and
   c. The number of acres for each area.

3. Report the volume of recycled water used for soil compaction/dust control at each site during the period.

C. Recycled Water

Samples of the recycled water following tertiary treatment and leaving the Treatment Plant for reuse by permitted users must be collected and analyzed to determine the magnitude of the following parameters:

Parameter	Units	Type	Minimum Frequency
Flow	MGD	Flow Meter And Recorder	Continuous
Turbidity[11]	NTU	Turbidity Meter And Recorder	Continuous
Total chlorine residual	mg/L	Chlorine Residual Meter And Recorder	Continuous (When the effluent is chlorinated)
Modal contact time[12]	minutes	Calculated	Daily
CT value[13]	mg-minutes/L	Calculated	Daily
PH	pH units	Grab Sample	Daily
Total coliform bacteria [9]	MPN/100ml	Grab Sample	Daily
Total Organic Carbon (TOC)	mg/L	24-hr composite sample	Quarterly
BOD520°C[1]	mg/L	24-hr composite sample	Monthly
CBOD[2]	mg/L	24-hr composite sample	Monthly
COD[3]	mg/L	24-hr composite sample	Monthly
Total dissolved solids	mg/L	24-hr composite sample	Monthly
Nitrate nitrogen	mg/L as N	24-hr composite sample	Monthly
Nitrite nitrogen	mg/L as N	24-hr composite sample	Monthly
Ammonia nitrogen	mg/L as N	24-hr composite sample	Monthly
Kjeldahl nitrogen	mg/L as N	24-hr composite sample	Monthly
Total petroleum hydrocarbons[6,8]	mg/L	Grab	Quarterly
Oil and grease	mg/L	Grab	Quarterly
Methylene blue active substances[4]	mg/L	Grab	Quarterly
Total trihalomethanes (TTHM)	mg/L	Grab	Quarterly (When the effluent is chlorinated)
Haloacetic acids (five) (HAA5)	mg/L	Grab	Quarterly (When the effluent is chlorinated)
NDMA8	mg/L	Grab	Quarterly (When the effluent is chlorinated)
Priority pollutants		24-hr composite sample	Annually
Total cyanides	mg/L	24-hr composite sample	Annually
Total phenols	mg/L	24-hr composite sample	Annually
Total chromium[10]	mg/L	24-hr composite sample	Annually
Hexavalent chromium[10]	mg/L	Grab	Annually
Heavy metals[7,8]	mg/L	24-hr composite sample	Annually

Parameter	Units	Type	Minimum Frequency
Purgeable organics[7,8]	mg/L	Grab	Annually
Base/nuetral extractable organics[7,8]	mg/L	24-hr composite sample	Annually
Acid extractable organics[7,8]	mg/L	24-hr composite sample	Annually

D. Supply Water Monitoring

For each semi-annual period (January – June; July – December), a report must be submitted to the Lahontan Water Board providing the results of State Department of Health Services-specified drinking water supply monitoring for District Supply Wells No. 16 and 21 located at or near Sierra Star and Supply Wells 6 and 10 located at or near Snowcreek. Ground water elevations at the time of sampling must also be provided for each well. The reports must be included with the quarterly monitoring reports providing results from the second and fourth quarterly monitoring periods, as specified by Provision II.B of this Order.

E. Permitting

The following must be recorded each quarter:

1. A list of all Authorized Recycled Water Use Sites (sites), including the following information for each site: name of site, user name, type of use, site area (acres) and date the District approved use of recycled water at the site;

2. The total number of sites that received recycled water during the quarter must be recorded; and

3. A map of suitable scale showing the boundary of the Permit Area and the sites that received recycled water.

F. Compliance Inspections and Enforcement

1. A list of sites inspected by the District during the quarter must include the following information for each site:

   a. Date of inspection, name of site, user name and type of use;
   b. A description of any violations noted;
   c. The date compliance was achieved and the corrective action taken; and
   d. A description of enforcement action taken (if any), including any schedule for achieving compliance.

2. Signage informing the public that recycled water is currently being used for irrigation purposes at each irrigation recycled water use facility must be inspected monthly. Maintenance of this signage is required. The results of this inspection must be reported by the District in its quarterly report.

3. Best Management Practices (BMPs) in place to prevent contamination of potable water supplies (including ground water) must be inspected on a monthly basis. The results of this inspection and measures taken to maintain, retrofit these BMPs must be reported by the District in its quarterly report.

G. Operation and Maintenance

A brief summary of any operational problems and maintenance activities must be submitted to the Lahontan Water Board with each quarterly monitoring report. This summary must discuss:

1. Any modifications or additions to the recycled water treatment facilities, distribution and user systems;

2. All backflow prevention devices at each Authorized Recycled Water Use Sites testing results;

3. The recycled water distribution system must be inspected annually for cross connections with the potable water supply. The results of cross connections inspections at each Authorized Recycled Water Use Site.

4. The recycled water distribution system must be pressure tested for leaks or drops in pressure annually. The testing results of the District's recycled water distribution system must be reported.

5. Any non-routine maintenance conducted to the recycled water treatment facilities (microfiltration, denitrification sand filters, UV disinfection, recycled water storage pond), distribution and user systems;

6. Any major problems occurring to the recycled water treatment facilities, distribution and user systems;

7. The calibration results of any recycled water flow measuring devices.

II. REPORTING

A. General Provisions

1. The District must comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program (Attachment I).

2. Pursuant to General Provision No. 1d. of the General Provisions for Monitoring and Reporting, the District must submit to the Water Board by **September 8, 2009** a Sampling and Analysis Plan (SAP) for consideration of approval. The SAP must include a detailed description of procedures and techniques for:

   a. Sample collection, including purging techniques, sampling equipment, and decontamination of sampling equipment;
   b. Sample preservation and shipment;
   c. Analytical procedures;
   d. Chain of custody control; and
   e. Quality assurance/quality control (QA/QC).

B. Quarterly Reports

Beginning on **September 1, 2009**, quarterly monitoring reports including the preceding information must be submitted to Water Board by the first day of the third month following each quarterly monitoring period. (Water Code, Section 13523.1, subd. (b)(4).)

Quarterly monitoring periods are defined as follows:

First Quarter	January 1 - March 31
Second Quarter	April 1 - June 30
Third Quarter	July 1 - September 30
Fourth Quarter	October 1 - December 31

C. Annual Report

Beginning on **April 1, 2010** and continuing thereafter, the District must submit an annual report to the Water Board with the following information:

1. Documentation of status of the District's compliance with the attached Master Water Recycling Requirements;

2. The compliance record and the corrective actions taken or planned, which are necessary to bring the District into full compliance with the Master Water Recycling Requirements; and

3. The District's time schedule for completing corrective actions needed to achieve compliance.

Ordered by: _____ Dated: _____

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment: General Provisions for Monitoring and Reporting Program

---

1 Biochemical Oxygen Demand (5 day, 20°C of a filtered sample).
2 Carbonaceous Biochemical Oxygen Demand (5 day, 20°C of a filtered sample).
3 Chemical Oxygen Demand of a filtered sample.
4 Methylene Blue Active Substances.
6 Use USEPA Test Method SW 8015 with method calibration based on an appropriate fuel standard.
7 Analysis shall be conducted for those substances known to the Discharger to be discharged to the sewer system.
8 Sample results greater than or equal to the reported Minimum Level (ML) shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample). Sample results less than the reported ML, but greater than or equal to the laboratory's Method Detection Limit (MDL), shall be reported as "Detected , but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy, (+/- a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory. Analysis for the purgeable organics, o-xylene and m+p-xylene, is acceptable for meeting the requirement to analyze for xylene. Monitoring for dioxins and polychlorinated biphenyls (PCBs) is not required. N-Nitrosodimethylamine (NDMA) shall be analyzed using a laboratory method with a Minimum Level of 0.002 µg/L.
9 Total coliform bacteria samples may be collected at the most appropriate point in the treatment process.
10 Use appropriate USEPA approved methods that will quantify concentrations down to 0.0025 mg/l for hexavalent chromium and 0.05 mg/l for total chromium.
11 For each 24-hour period, record and report the following:
   a. 0.5 mgd tertiary treatment plant: average turbidity, amount of time (minutes) the turbidity exceeded five (5) NTUs (if any), and the maximum turbidity.
   b. 1.0 pilot tertiary treatment plant: amount of time (minutes) the turbidity exceeded 0.2 NTUs (if any) and the maximum turbidity.
12. The modal contact time at the highest and lowest flows must be recorded and reported for each 24-hour period where there is production of disinfected tertiary recycled water. The "modal contact time" is the amount of time elapsed between the time that a tracer, such as salt or dye, is injected into the influent at the entrance to a chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber. For the purpose of this determination, modal contact time shall be derived from a predetermined plot correlating modal contact times to varying flow conditions. (22CCR§60301.600)
13. When chlorine is used as the disinfectant in production of disinfected tertiary recycled water, the lowest CT value must be calculated for each 24-hour period. CT (mg-minutes per liter) = chlorine residual (mg/L) x modal contact time (minutes). To calculate the lowest value, first record the following data for the 24-hour period:
   a. Modal contact time under highest flow and corresponding total chlorine residual at that time.
   b. Lowest total chlorine residual and corresponding modal contact time.
   c. Highest total chlorine residual and corresponding modal contact time.
   d. Modal contact time under lowest flow and corresponding total chlorine residual at that time.

Next, calculate CT values for each of the four conditions, above. The lowest of the four calculated CT values is the lowest CT for the period.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. SAMPLING AND ANALYSIS

   a. All analyses shall be performed in accordance with the current edition(s) of the following documents:

      i. Standard Methods for the Examination of Water and Wastewater

      ii. Methods for Chemical Analysis of Water and Wastes, EPA

   b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.

   c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.

   d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.

   e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.

   f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

   g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.

d. Monitoring reports shall be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

iii. In the case of a sole proprietorship, by the proprietor; or

iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

e. Monitoring reports are to include the following:

i. Name and telephone number of individual who can answer questions about the report.

ii. The Monitoring and Reporting Program Number.

iii. WDID Number.

f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation under Section 13268 of the Water Code.